

In the Claims

Please amend the claims as follows. Applicant submits a new complete claim set in which insertions and deletions in marked-up claims are indicated by underlining and strikeouts, respectively.

Please rewrite the claims, and add new claims, as indicated below:

1-36. (canceled)

37. (currently amended) A method of stimulating or enhancing a protective immune response to an antigen in a mammal; which method comprises co-administering to a mucosal surface of said mammal with the antigen an effective adjuvant amount of a non-toxic double mutant form of pertussis toxin, said antigen being one which elicits a protective immune response when co-administered with said effective adjuvant amount of said non-toxic double mutant form of pertussis toxin, wherein said non-toxic double mutant form of pertussis toxin comprises an S₁ sub unit containing an amino acid at position 129 which is other than glutamic acid and containing an amino acid at position 9 which is other than arginine.

38. (canceled)

39. (currently amended) A method according to claim 37 ~~38~~, wherein the amino acid at position 129 in the S₁ sub-unit is glycine. ✓

40. (canceled)

41. (currently amended) A method according to claim 37 ~~40~~ wherein the amino acid at position 9 is lysine. ✓

42. (previously added) A method according to claim 37 wherein the antigen and the non-toxic form of pertussis toxin are administered intranasally.

43. (previously added) A method according to claim 37 wherein the antigen and the non-toxic double mutant form of pertussis toxin are administered at the same time.

44. (previously added) A method according to claim 43 wherein the antigen and the non-toxic double mutant form of pertussis toxin are present in admixture in a composition administered to the mammal.

45. (previously added) A method according to claim 37 wherein the antigen is selected from the group consisting of tetanus toxin C-fragment, and one or more immunogenic fragments thereof.

46. (currently amended) A method according to claim 37 45 wherein the antigen is selected from the group consisting of FHA and P69.

✓
47-54 (withdrawn)

55. (new) A method according to claim 46 wherein both FHA and P69 are co-administered with the non-toxic double mutant form of pertussis toxin.
